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# Maintaining high response rates – is it worth the effort?

Patrick Sturgis, *University of Southampton*

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL
UNIVERSITY OF Southampton
MANCHESTER 1824 The University of Manchester
THE UNIVERSITY OF EDINBURGH

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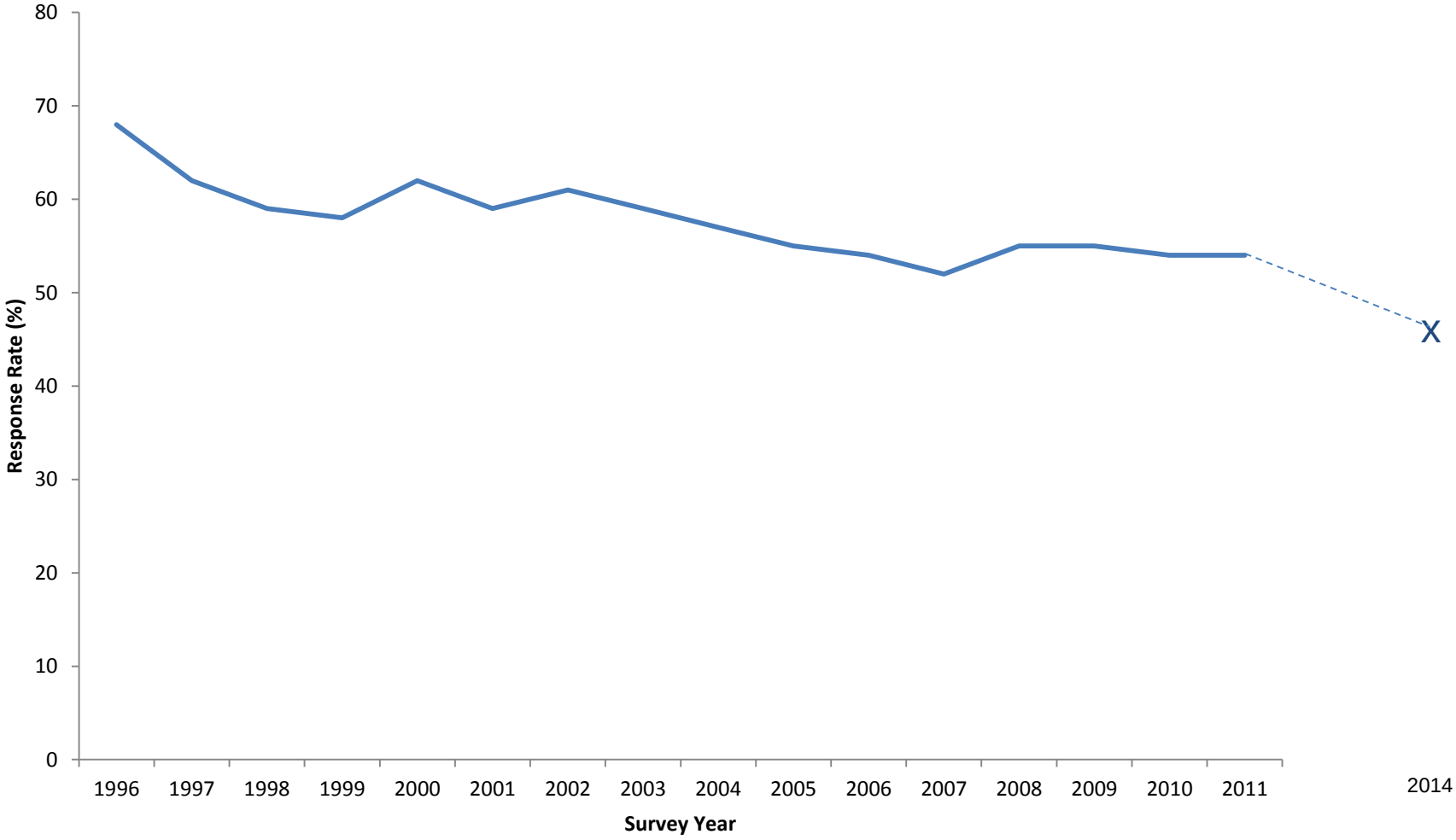
# Response Rates going down

# British Social Attitudes Survey Response Rate 1996-2011



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# Low and declining response rates

- RDD even worse, in the US routinely < 10% (increasing mobile-only + do not call legislation)
- Survey sponsors ask ‘what are we getting for our money?’
- Is a low response rate survey better than a well designed quota?

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# Increasing costs

- Per achieved interview costs are high and increasing
- Simon Jackman estimates $2000 per complete interview in 2012 American National Election Study
- My estimate= ~£250 per achieved for PAF sample, 45 min CAPI, n=~1500, RR=~50%
- Compare ~£5 for opt-in panels

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# Cost drivers

- Average number of calls increasing
- More refusal conversion
- More incentives (UKHLS, £30)
- 30%-40% of fieldwork costs can be deployed on the 20% ‘hardest to get’ respondents

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# Externalities of 'survey pressure'

- Poor data quality of 'hard to get' respondents
- Fabrication pressure on respondents (community life survey)
- Fabrication pressure on interviewers (PISA)
- Ethical research practice?

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# Is all this effort (and cost) worth it?

# r(response rate, nonresponse bias) Groves (2006)

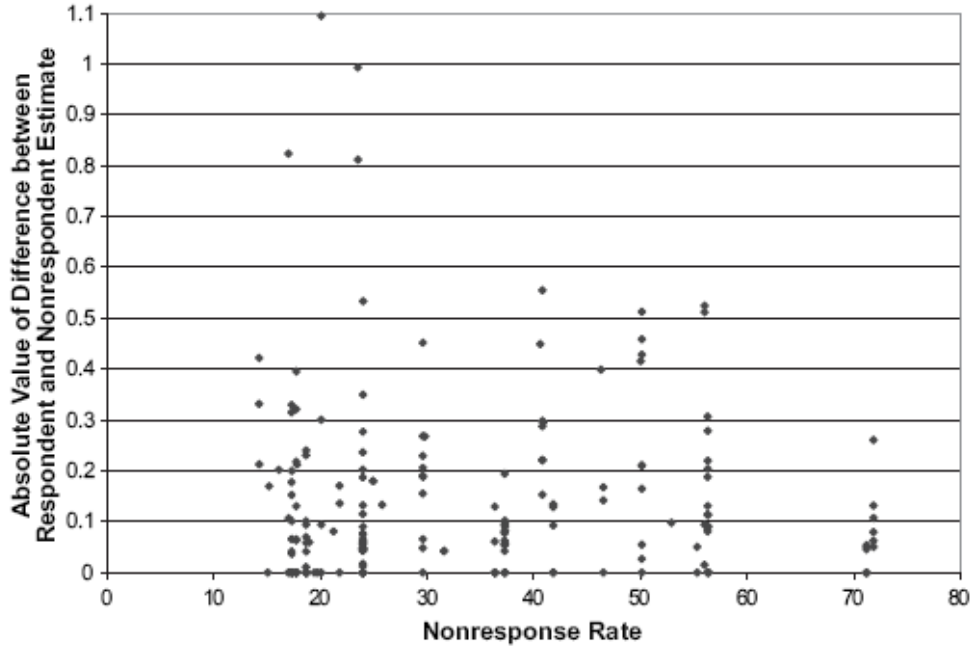


**Figure 4.** Estimated absolute difference between respondent and nonrespondent percentages for standardized variables $|(\bar{y}_r^{std} - \bar{y}_m^{std})|$, adjusted for sampling variance, for 191 percentages by nonresponse rate from 23 different methodological studies.

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# Correlation response rate & bias

- Edelman et al (2000) US Presidential exit poll
- Keeter et al (2000) compare ‘standard’ and ‘rigorous’ fieldwork procedures
- In general, the field finds weak response propensity models

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# Our study

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# Williams, Sturgis, Brunton-Smith & Moore (2016)

- Take estimate for a variable after first call
  - E.g. % smokers = 24%
- Compare to same estimate after n calls
  - Now % smokers = 18%
- Absolute % difference = 6%
- Relative absolute difference = 6/18 = 33%
- Do this for lots of variables over multiple surveys

| | British Crime Survey | Taking Part | British Election Study | Community Life | National Survey for Wales | Skills for Life |
|---|---|---|---|---|---|---|
| **Population** | England & Wales 16+ | England 16+ | Great Britain 18+ | England 16+ | Wales 16+ | England 16-65 |
| **Timing** | 2011 | 2011 | 2010 | 2013-14 | 2013-14 | 2010-11 |
| **Sample size** | 46,785 | 10,994 | 1,811 | 5,105 | 9,856 | 7,230 |
| **RR** | 76% | 59% | 54% | 61% | 70% | ~57% |
| **Incentives?** | Stamps (U) | Stamps (U) +£5 (C) | £5-10 (C) | Stamps (U) +£5 (C) | None | £10 (C) |

U=unconditional incentive, C= conditional incentive

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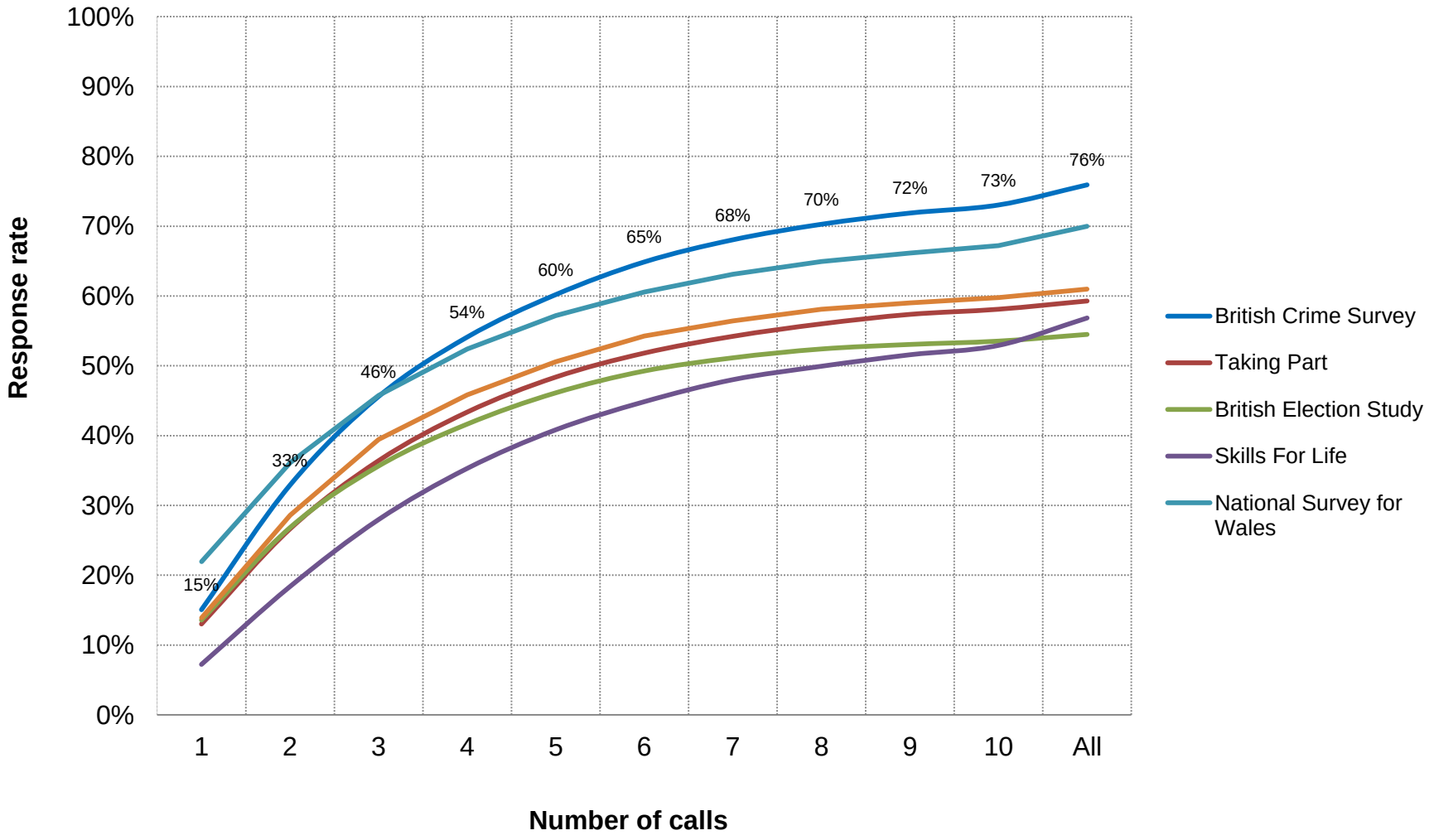
# RESPONSE RATE PER CALL NUMBER FOR ALL SIX SURVEYS



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# Methodology

- All non-demographic variables administered to all respondents = 559 questions
- For each variable calculate average percentage difference in each category = 1250 at each call
- Code questions by:
  - response format: categorical; ordinal; binary; multi-coded
  - Question type: behavioural; attitudinal; belief
- Multi-level meta-analysis

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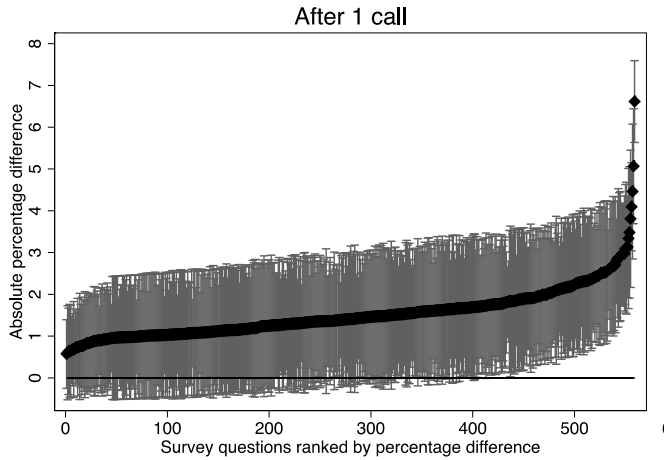
# Results

# ESTIMATED ABSOLUTE PERCENTAGE DIFFERENCE BY QUESTION (DESIGN WEIGHTED)




Mean = 1.6%

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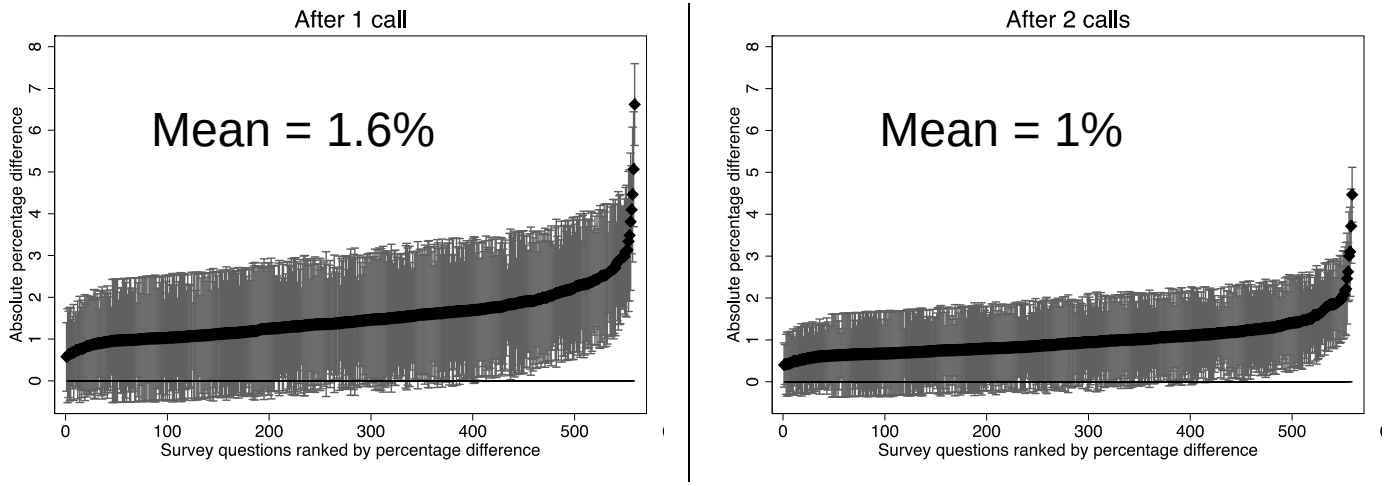

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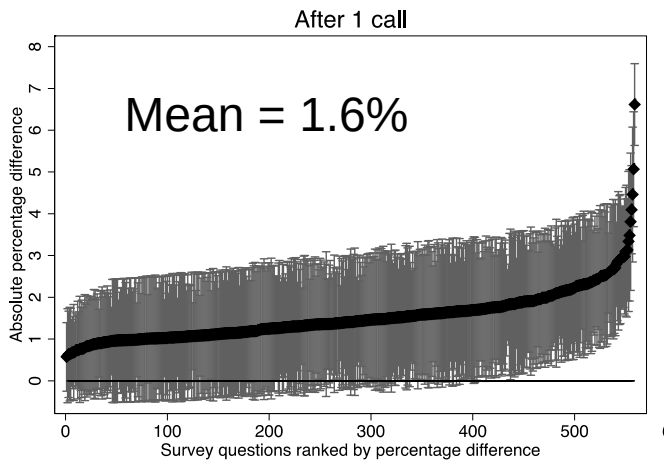


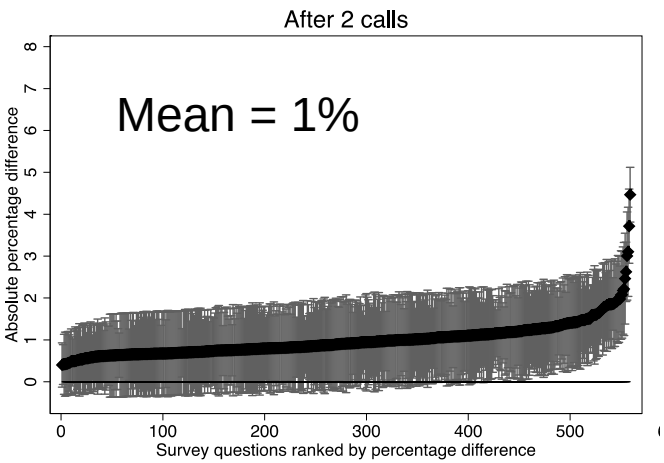


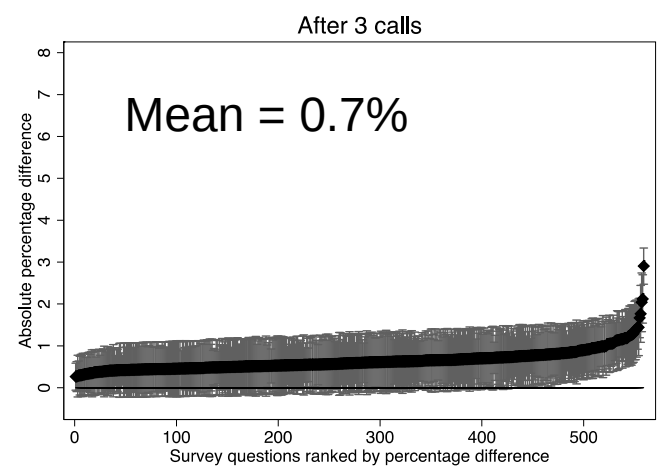

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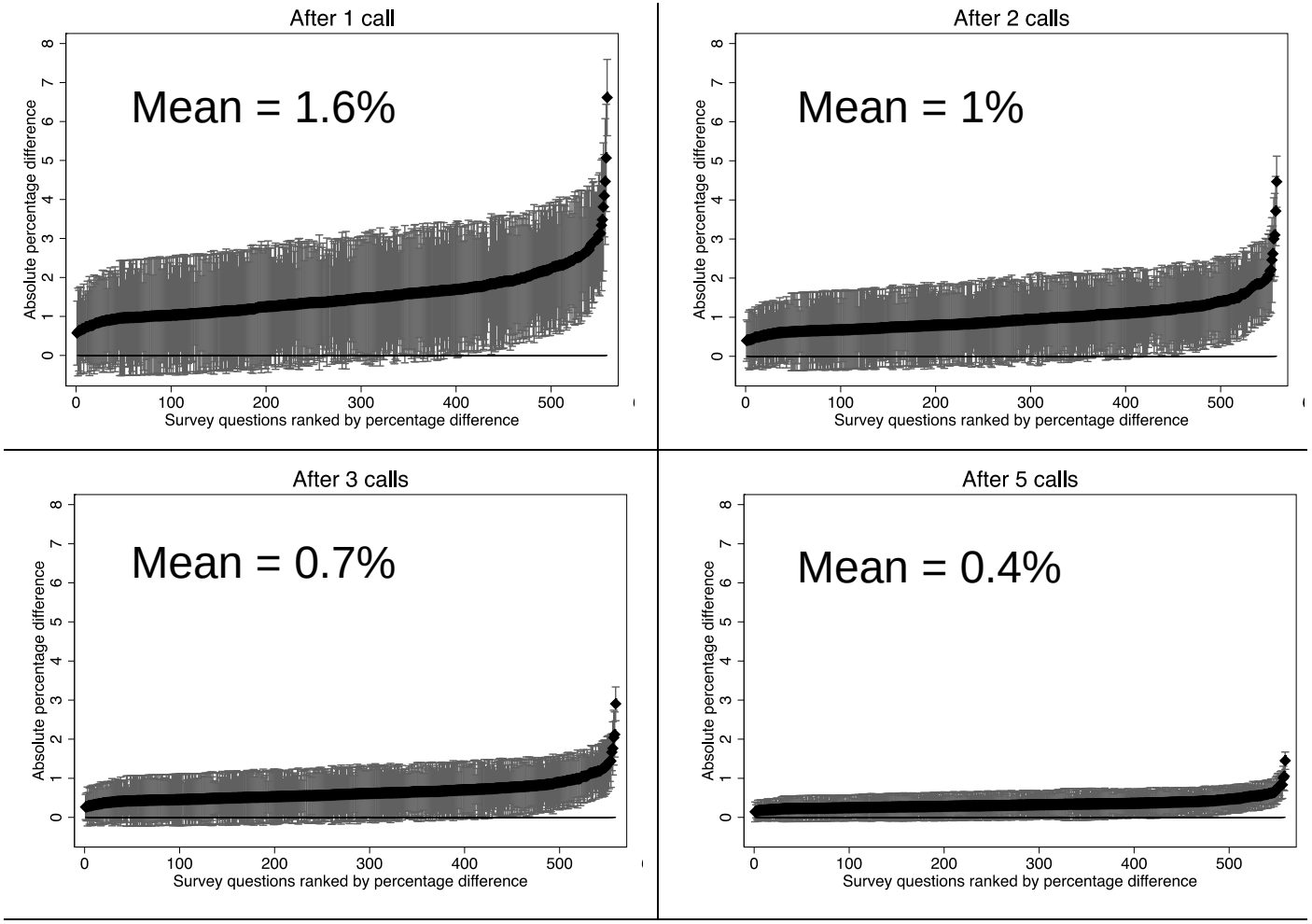
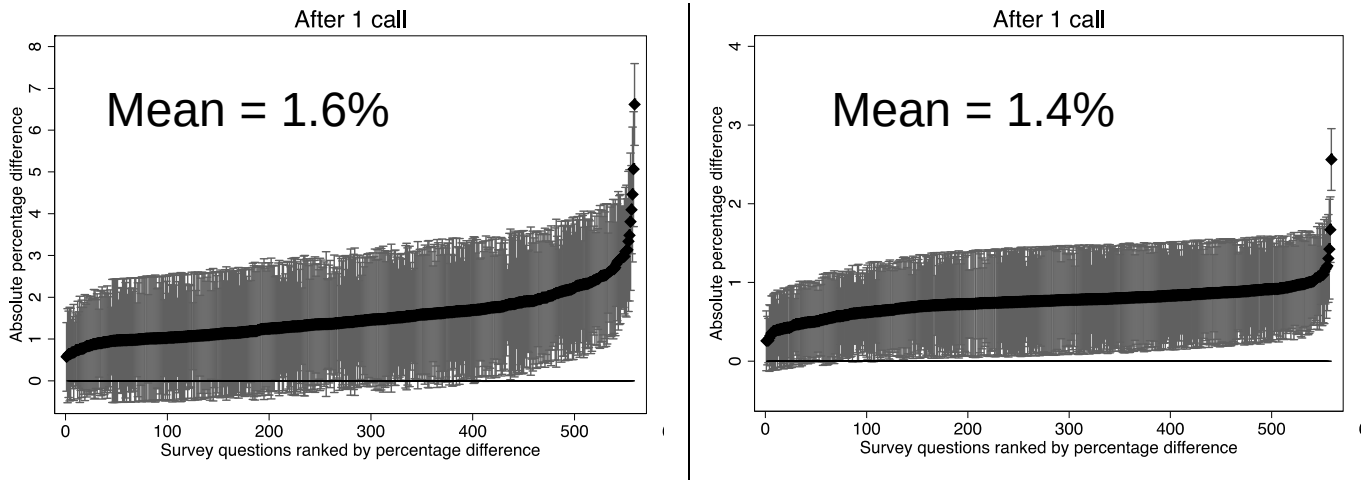


# DESIGN v CALLIBRATION WEIGHTED



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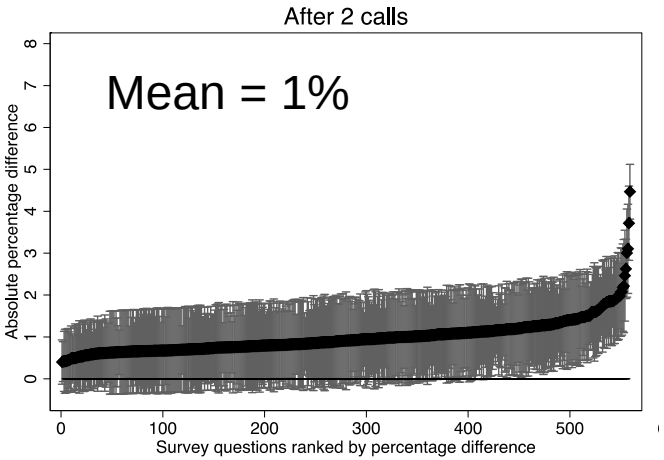


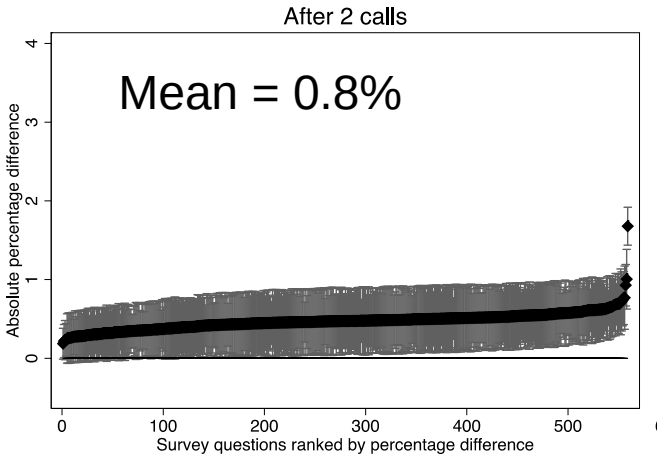

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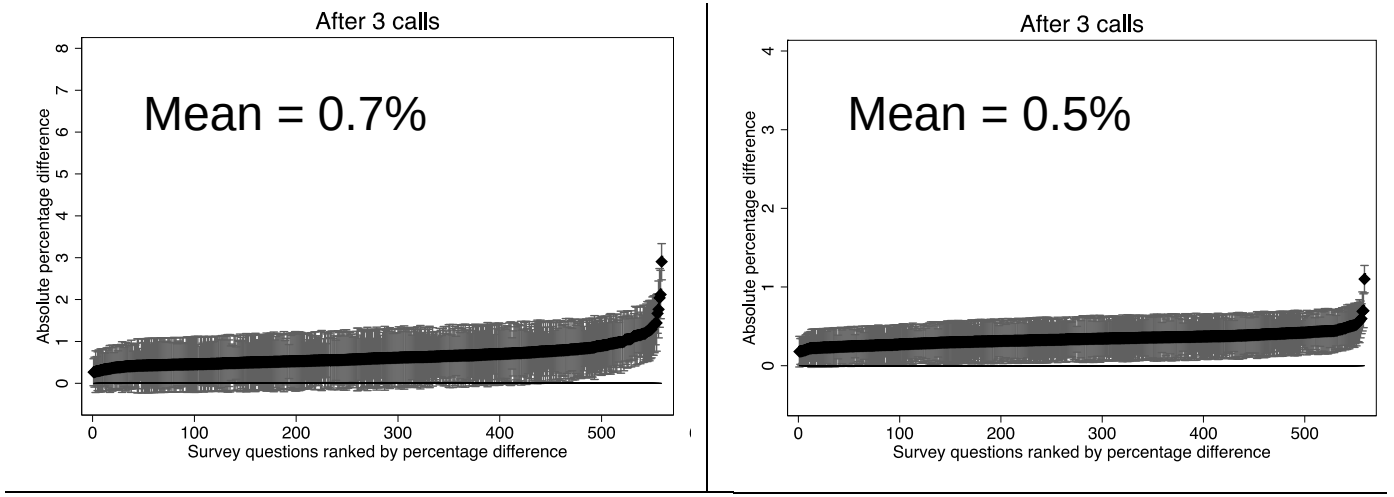

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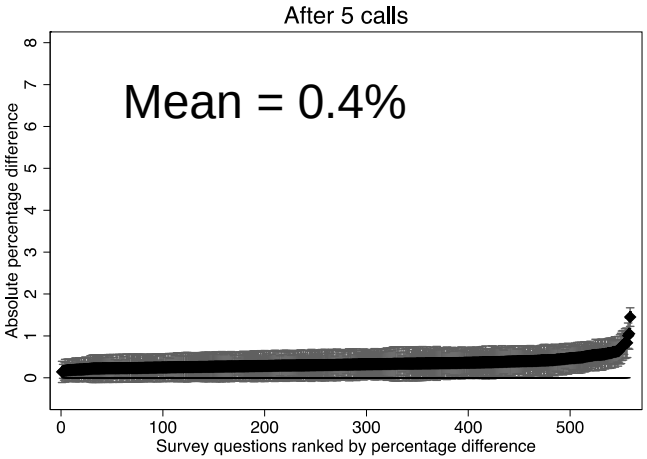


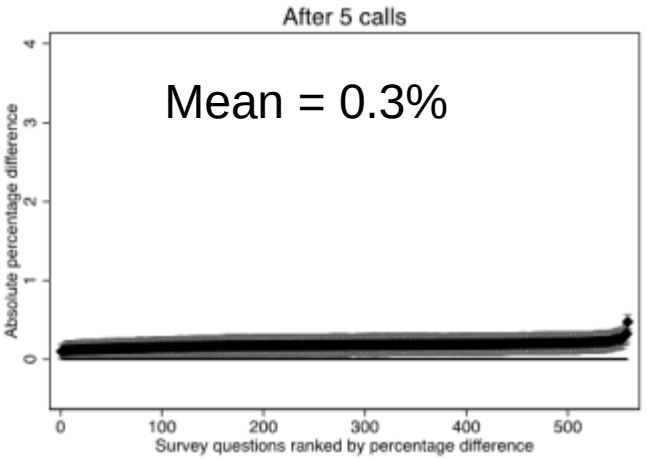

# Other Results

- Significant difference by survey, Taking Part on average 1% higher than BCS at call 1
- Some differences by question format and type at call 1 but this disappears at later calls
- Pattern essentially the same using relative absolute difference

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# Discussion

- More evidence of weak correlation between RR and nonresponse bias
- Weakness = not a measure of bias
- Strength = broader range of surveys and variables
- Place upper limit on calls? Make only one call?
- Not that simple!

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Williams, Joel and Sturgis, Patrick and Brunton-Smith, Ian and Moore, Jamie (2016) *Fieldwork effort, response rate, and the distribution of survey outcomes: a multi-level meta-analysis*. NCRM Working Paper. NCRM

http://eprints.ncrm.ac.uk/3771/